REMARKS

1. Summary of Office Action

In the Office Action mailed March 17, 2005, the Examiner objected to claim 1 because of an informality in the claim. The Examiner rejected claims 1, 3, 5-17, 20, and 22 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,693,878 B1 (Daruwalla et al.). The Examiner rejected claims 4 and 21 under 35 U.S.C. §103(a) as being unpatentable over Daruwalla et al. in view of U.S. Patent No. 6,628,649 (Raj et al.). The Examiner rejected claims 18-19 and 23 as being unpatentable over Daruwalla et al. in view of U.S. Patent No. 6,510,135 B1 (Almulhem et al.). The Examiner has made this Office Action Final.

2. Amendments and Pending Claims

Applicants have amended claims 1, 8, 10-11, 17-18, and 21-22 and have cancelled claim 23. Claims 1 and 3-22 are presently pending in this application, of which claims 1, 8, 11, and 17 are independent.

3. Response to Claim Objections

The Examiner objected to claim 1 due to an informality of the claim. Applicants have amended claim 1 to address the informality identified by the Examiner.

4. Response to §103 Rejections of Claims 1, 3, 5-17, 20 and 22 over Daruwalla et al.

The Examiner rejected claims 1, 3, 5-17, 20, and 22 as being unpatentable over Daruwalla et al. Applicants respectfully traverse the obviousness rejection of pending claims 1, 3, 5-17, 20, and 22 because Daruwalla et al. fails to disclose or suggest all of the limitations of any of these claims.

With respect to claim 1, Daruwalla et al. fails to disclose or suggest (i) establishing a routing path between the first host on the first network and one of the plurality of hosts on the

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second network, the plurality of hosts on the second network *sharing a globally-routable network address*, and (ii) receiving a message from the first host, the *message comprising the shared globally-routable network address* and a destination identifier associated with one of the plurality of physical network addresses.

With respect to claim 8, Daruwalla et al. fails to disclose or suggest (i) a plurality of local hosts on a second network, the plurality of local hosts having the plurality of physical network addresses and *sharing a globally-routable network address*, and (ii) a local processing module for determining a physical network address upon a receipt of a *message comprising the shared globally-routable network address* and a destination identifier from the host on the first network.

With respect to claim 11, Daruwalla et al. fails to disclose or suggest (i) establishing a routing path from a first host on a first network to a second host on a second network, the second host comprising a unique data link layer address and *sharing a globally-routable network layer address* with a plurality of hosts on the second network, and (ii) receiving a message from the first host on the first network, the *message comprising the shared globally-routable network address* and the destination identifier.

With respect to claim 17, Daruwalla et al. fails to disclose or suggest (i) a centralized routing module for generating a routing table for a switch module associated with *a plurality of network entities sharing a globally-routable network address*, and (ii) the switch module for receiving a data packet *addressed to the shared globally-routable network address*.

In rejecting claims 1, 8, 11, and 17, the Examiner indicated that Daruwalla et al. teaches a plurality of hosts (or a plurality of network entities) sharing a globally-routable network address (i.e., a shared VPN address), and the Examiner cited to Col. 12, lines 27-31, and/or Figures 3, 6 and 7, in support. At best, these sections of Daruwalla et al. merely teach that each VPN is

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assigned a unique sub-interface value, such that, for example, all packets coming from cable modems belonging to VPN1 will be associated with sub-interface 1, and all packets coming from cable modems belonging to VPN2 will be associated with sub-interface 2.

However, Applicants submit that Daruwalla et al. does not teach or suggest that a sub-interface value is a *globally-routable* network address. Instead, Daruwalla et al. teaches that a "sub-interface" is a *local* parameter, namely, "a logical interface representing a portion of a physical network interface." (See Col. 10, lines 1-3). More particularly, Daruwalla et al. teaches that "a single physical cable interface at a CMTS may be sub-divided into a plurality of logical sub-interfaces." (See Col. 10, lines 3-5). The sub-interface values are part of a VPN/Sub-interface table that a CMTS can consult for mapping packets from a particular cable modem onto a particular sub-interface based upon the SID information [or IP address, or MAC address] contained in the packet. (See e.g., Col. 11, lines 64-67, and Col. 12, lines 18-25 and 57-62). Thus, the sub-interface value is not a globally-routable network address.

In addition, the Applicants have (i) amended claims 1 and 11 to indicate receiving a message from the first host, the *message comprising the shared globally-routable network address* and a destination identifier, (ii) amended claim 8 to recite a local processing module for determining a physical network address upon a receipt of a *message comprising the shared globally-routable network address* and a destination identifier, and (iii) amended claim 17 to recite the switch module for receiving a data packet *addressed to the shared globally-routable network address*.

Based on these claim amendments, even if a sub-interface value is somehow considered to be a globally-routable network address, Applicants submit that Daruwalla et al. does not teach or suggest (i) receiving a message that comprises the sub-interface value, or (ii) receiving a data

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packet addressed to the sub-interface value. Rather, as noted above, Daruwalla et al. teaches that a CMTS (i) receives packets that include SID information [or an IP address, or a MAC address], and (ii) identifies a sub-interface for mapping the packets, based on the SID information [or an IP address, or a MAC address] contained in the packets. (See e.g., Col. 11, lines 64-67, and Col. 12, lines 18-25 and 57-62).
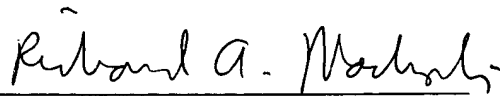
Since Daruwalla et al., alone or in combination with the other prior art of record, fails to disclose or suggest all of the elements of claims 1, 8, 11, and 17, Applicants submit that claims 1, 8, 11, and 17 are allowable over Daruwalla et al. and the other prior art of record. Further, claims 3-7, 9-10, 12-16, 18-22 depend from either claim 1, 8, 11, or 17, and are allowable over Daruwalla et al. and the other prior art of record, for at least the reason that they are dependent upon an allowable claim.

5.   Conclusion

Applicants respectfully submit that claims 1 and 3-22 are now in a condition for allowance, and respectfully request favorable reconsideration and prompt allowance of the claims. If the Examiner would like to discuss this case, the Examiner is encouraged to contact the undersigned at (312) 913-2129.

Respectfully submitted,
**McDONNELL BOEHNEN
HULBERT & BERGHOFF LLP**

Date: May 17, 2005   By: _Richard A. Machonkin_
                                    Richard A. Machonkin
                                    Reg. No. 41,962

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